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Headquarters, Commander-in-Chief,
Allied Forces Northern Europe.

Oslo. 10 July 1952.

No. AFNE 537/2542.03/52.

SUPREME HEADQUARTERS ALLIED POWERS EUROPE

- (Copies to:- The Chief of Defence Staff, Norway
 The Chief of Defence, Denmark
 The Commander-in-Chief, Allied Air Forces
 Central Europe
 The Commander-in-Chief, Allied Air Forces
 Southern Europe
 The Commander, Allied Land Forces Norway
 The Commander, Allied Land Forces Denmark
 The Commander, Allied Naval Forces
 Northern Europe
 The Commander, Allied Air Forces
 Northern Europe (without enclosures).)

REPORT ON ALLIED AIR FORCES, NORTHERN EUROPE

AIRNORTH letter AG 3070 PI dated 23 June 1952, enclosing a report on the Allied Air Forces Northern Europe for the period 1 June 1951 to 23 June 1952, is forwarded for information. This report embodies the experience and recommendations of COMAIRNORTH after a year in the Northern Command.

2. I have not yet studied it in detail and there are certain controversial matters with which I do not fully agree, notably paragraph 21 about Maritime Air Forces. Furthermore, I am personally handling the question of Command Structure for the Command as a whole and wish to continue to do so (paragraph 7 refers).

3. My comments will be forwarded soon, but in the meanwhile, the report furnishes a most valuable basis for study and for future planning.

A

Handwritten signature
cos for
(Patrick Brind)
ADMIRAL.



Enclosure:

AIRNORTH letter No. AG 3070 PI
dated 23 June 1952.

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HEADQUARTERS
ALLIED AIR FORCES NORTHERN EUROPE
Oslo, Norway

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23 June 1952


AG 3970 PL

SUBJECT: A Report on The Allied Air Forces
Northern Europe

THRU: Commander-in-Chief
Allied Forces Northern Europe
Oslo, Norway

TO: Supreme Headquarters
Allied Powers Europe
Marilyn, France

Forwarded herewith are copies of a report on
the progress and capability of Allied Air Forces Northern
Europe covering the period 1 June 1951 through 22 June 1952.


R. K. TAYLOR
Major General, USAF
Commanding

Incl
Report on AAFNE (10cys)

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Report on the Allied Air Forces
Northern Europe

(From 1 June 1951 to 23 June 1952)

I - INTRODUCTION

Creation of Headquarters AAFNE

1. Headquarters Allied Air Forces Northern Europe was created by SHAPE on 29 March 1951. Major General R. K. Taylor was assigned as its Commander on 2 April 1951. The Headquarters was established in London on 1 June 1951 and later transferred to its present and permanent location in Oslo, Norway, on 22 June 1951.

2. The mission assigned by the Supreme Allied Commander Europe in his letter of 29 March 1951 to the Commander AAFNE was as follows:

a. "Your primary mission will be the defense of the Northern European area. In accomplishing this mission, you will maintain close cooperation with the Commander, Allied Air Forces, Central Europe, and the Commanders of other forces in Northern Europe.

b. "Forces will be allocated or earmarked for your Command by the Allied Commander-in-Chief, Northern Europe, from forces designated to him by me. In war, you will exercise operational command over these forces under the strategic direction of the Allied Commander-in-Chief, Northern Europe.

c. "In peace your primary task is to ensure that the forces allocated or to be allocated to your Command in time of war are organized, equipped, trained, and ready to perform their war missions."

The Task

3. So far no units have been earmarked or allocated to the Allied Air Forces Northern Europe. Therefore, it has been possible to influence the development of Norwegian and Danish air forces only by means of advice and discussions. Further, agreement on several matters of major policy has not been reached as yet and implementation of plans is hampered as a result. The most important points upon which agreement has not been reached will be discussed in greater detail in the sections of this report where they are most appropriate. In spite of the fact that formal assignment of air units has not taken place, planning is proceeding on the basis

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that all the operational resources of the RAAF and RDAF will be available to Commander AAFNE on the outbreak of war and that they will receive adequate logistic support.

Content of the Report

4. This report is broken down under three general headings: planning, operational- and administrative matters. It contains a brief account of the major problems which have been encountered, the progress made during the past year, and concludes with an analysis of the combat capability and potential of the air forces of the Northern European Command.

II - PLANNING MATTERS

Defense Plans

5. Much of the effort of the Headquarters during the past year has been directed towards the creation of plans for defense. In this respect two items of major policy have been discussed at length - the Division of Responsibility between NATO and National Commanders in the event of war, and the Command Organization for the operation of the forces which will eventually be allocated to this Headquarters. No agreement has been reached with the national authorities on either of these subjects and the writing of a realistic plan is difficult, whilst any large scale implementation must await resolution of various points still at issue. In order that plans could be prepared, however, certain assumptions upon these two subjects have been made. The Air Defense Plan for Northern Europe was issued on 7 June, 1952 to provide guidance to subordinate air commanders in the emergency period. Broadly speaking, it is an amplification of the air aspects of the Outline Combined Emergency Defense Plan for Northern Europe, which was put into effect by Commander-in-Chief Northern Europe on 16 February 1952. Work is still in progress on the Air Plan for 1954, and will be issued to coincide with the introduction of the Combined Plan for that period which is being prepared by Headquarters AFNE.

Build-up of Air Forces

6. There is in existence at the present time a program for the phased build-up of air forces required by the Northern Command by mid-1954. All plans other than the Emergency Plan with which this Headquarters has been involved have been based on the

assumption that the present existing governmental policies in Norway and Denmark which prohibit the stationing of foreign forces in these two nations during time of peace will be altered. If these policies are not changed, any 1954 plans will, from an air point of view, be unrealistic since the Norwegian and Danish air forces will constitute only some 50% of the air forces which are required by 1954. Since the air requirements of this Command assume that all forces would be in place and ready to fight on D-day, any system whereby half of the air forces would not be available until some time after D-day would throw the plans considerably out of balance. Therefore, this policy of prohibiting the stationing of foreign units in Northern Europe in peacetime is one of the greatest single obstacles which this Command faces relative to the build-up of the air forces. The policy has already had its weakening effect upon this Command in that it has been necessary to refuse the deployment of a much needed USAF Rescue Flight in Northern Europe. As time progresses, the real impact of the policy will become increasingly felt if the USAF units now scheduled for deployment in this Command are not admitted. If this problem is not resolved so as to permit foreign units in the Command by mid-1953, then at that time the whole concept of the defense of the Northern Flank should be reviewed.

Command Organization

7. A plan has been prepared for an Allied Air Command organization for the Northern European Command air forces. It creates three tactical commands immediately subordinate to this Headquarters and places the light bomber force, transport force, and maritime air forces directly under this Headquarters for operations. The three tactical commands are organized to be capable of both pure air defense operations and of tactical operations in conjunction with the other services. This plan has been submitted to the national authorities and is still under discussion. In these discussions this Headquarters has held that the three tactical command headquarters must be in the SHAPE channel of command immediately subordinate to Allied Air Forces Northern Europe and must be composed of personnel from the nations whose forces are represented. These subordinate

headquarters must be essentially operational in character and relieved of any heavy administrative or logistics burden. On the other hand, the Danish authorities have held that command of all air forces in Denmark should be through the RDAF Headquarters, as an Allied subordinate command. This Headquarters has accepted this arrangement for the emergency period but is of the opinion that it is unworkable as an ultimate war organization.

Division of Responsibility between NATO and National Commands

8. The lack of an agreed policy on this subject has hampered the planning progress made during this past year. Had a policy been established and had an Allied Command organization been agreed early in the life of this Headquarters, considerably more progress would have been realized to date.

Infrastructure

9. Plans - Nineteen airfields have been planned for the Command, ten in Norway, seven in Denmark and two in North Germany. This number of airfields will be sufficient to support all the aircraft programmed by SHAPE for this Command. Fourteen are programmed to be completed up to prescribed SHAPE standards under the "Third Slice" Infrastructure Program, seven in 1952 and seven in 1953. The "Fourth Slice" Infrastructure Program plans for the completion of five more airfields in 1954 to bring the total up to nineteen. If the "Third Slice" and "Fourth Slice" Programs are realized, the following number of airfields will be available to this Command:

<u>Norway</u>	<u>Denmark</u>	<u>Germany</u>
6 Main	5 Main	1 Main
2 Alternate	2 Alternate	1 Alternate
2 Redeployment		

10. Progress - Work on airfields programmed in the "Third Slice" is progressing satisfactorily according to informal reports received in the Headquarters from the national authorities. Some delays were encountered because of the lack of a firm set of construction standards and some confusion on the part of the national authorities concerning construction details, but these difficulties have apparently been overcome. Norway has concentrated civil and military engineering forces on infrastructure airfields and plans

are being implemented. Denmark has not yet formally submitted any plans to this Headquarters for approval, but it is expected that they will soon be ready. Meanwhile, small portions of the construction program for that country are being prosecuted and the Danish authorities are confident that they will be able to meet all commitments of the program. However, it is the opinion of this Headquarters that the limited construction capacity of both Norway and Denmark and the short construction season in Norway leave no margin for delay if the requisite number of airfields is to be available for the Command in 1954.

11. Base Rights Agreements - Certain of the airfields programmed under "Third and Fourth Slice" are earmarked for occupation by foreign units of this Command. These airfields are:

In Norway

Jarlsborg Area

Lista

In Denmark

Tirstrup

Vandel

However, to date neither Norway nor Denmark has concluded a bilateral agreement with any other nation which would allow use of these airfields by foreign units in peace. Lack of suitable base rights agreement threatens to delay construction on these airfields, since funds for their construction to main base standards will not be made available unless they are to be actually occupied by the designated units. No delay has resulted as yet, but to make full use of the short construction seasons and the limited facilities already referred to, it is essential that any absence of agreement which might tend to retard execution of the programs should be resolved as speedily as possible.

12. Subordinate War Headquarters - The "Fourth Slice" Infrastructure Program plans for the construction of the operational facilities of three subordinate war headquarters located at Bodø and Holmenkollen in Norway and at Karup in Denmark. These headquarters have been planned on the assumption that the command structure still under discussion will be accepted without alteration in this respect. The validity of this aspect of the "Fourth Slice" Program therefore depends on the outcome of the discussions on the command structure.

III - OPERATIONAL MATTERS

Availability of Air Units

13. The current order of battle of the RDAF and RNAF is as follows:

<u>RNAF</u>		
<u>Location</u>	<u>Type</u>	<u>Remarks</u>
Gardermoen	45 Vampiros (2 squadrons)	IDF/FB
Gardermoen	10 Dakotas	Military transport aircraft
Bardufoss	16 Spitfire IX	Fighters, to be mobilized not later than D+1
Kjeller	3 Spitfire XL	Tactical recon aircraft
Sola and deployed bases	6 Catalinas	For air rescue and maritime duties
Sola	10 F-84	Transition Training
<u>RDAF</u>		
<u>Location</u>	<u>Type</u>	<u>Remarks</u>
Karup	32 Meteor	Interceptor day fighter
Karup	12 F-84	Transition Training
Vaerlöse	12 Spitfire IX	Fighters, to be mobilized not later than D+1
Vaerlöse	3 Spitfire XI	Tactical recon aircraft
Copenhagen and deployed bases	8 Catalinas	For transport and air rescue duties. Four are earmarked by Denmark for SAC-LANT
Kastrup	1 B17	Personnel transport aircraft

On the outbreak of war the above resources would be augmented by mobilized civil transport and by the few F84's in each country now used for transition training.

State of Pilot Training

14. The training programs of the fighter squadrons in the Royal Danish and Royal Norwegian Air Forces have been and are still based on Royal Air Force Annual Training Syllabi. The calibre and

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discipline of pilots in the fighter squadrons of both Air Forces is high. Lack of certain essential training equipment and facilities in both countries has, however, precluded the squadrons from completing the full annual syllabus and therefore considerably limited the combat ability of the pilots. In particular, instrument flying has to all intents and purposes been negligible owing to the absence of let-down aids; for the same reason night flying, except in good weather conditions, has not been undertaken.

15. The pilot training program has differed in the two Air Forces. In Denmark the Meteor squadrons train in a pure interceptor role and do not undertake ground support training. Camera gun exercises are flown regularly from the squadron home base and all operational pilots of the Meteor squadrons attend the RMAF Armament Practice Camp at Sylt for one month each year. Consequently, the state of training of pilots within the Danish fighter squadrons can be said to be satisfactory only in the interceptor role. The position, however, is far different in the RMAF where practically no air-to-air firing other than camera gun exercises is carried out. This most unsatisfactory state of affairs, which is caused primarily by a lack of target towing aircraft, has been brought to the attention of the Norwegian Air Staff who are making every endeavour to remedy the situation. The Norwegian Vampires, which can be used in the fighter-bomber role, undertake regular air-to-ground bombing at the RMAF air-firing ranges at Lista. Although these ranges are unsuitable for rocket firing, some training in the field is being accomplished.

16. In brief, the pilot material is excellent in both Air Forces. The Squadron Commanders themselves are well above average both in leadership and in keenness, and there is no doubt that if they were given all necessary training facilities to carry out their full annual training programs, the pilots would be in a high state of operational efficiency.

Air Defense Capability

17. As the order of battle shows, the Command's capability for air defense is contained in the two Vampire squadrons in Norway and the two Meteor squadrons in Denmark augmented by obsolete Spitfire IX's. The Aircraft Control and Reporting system to

alert and operate these aircraft is very weak. It consists of:

- a. two early warning stations in the south east part of Norway which cover the Skagerak and the Oslofjord.
- b. five GCI stations, three in the southern part of Norway and one each at Karup and Vaerlöse (in Denmark).

The equipment in use is obsolete British equipment and short of spares. Its usefulness is further decreased by personnel shortages which at present only allow for it being operated for eight hours per day. Until more personnel are trained, the system could not be relied upon for any length of time on a twentyfour-hours-per-day basis. Therefore, taking into consideration the numbers of aircraft, the state of training of the pilots, and the restrictions imposed by the control and reporting system, the Command is only capable of a limited fair-weather air defense of South Norway, the Copenhagen area and central Jutland. The vital areas of South Jutland and North Norway are not covered by radar; they could therefore only be defended against air attack by standing patrols or offensive sweeps expensive in flying hours. More radar coverage, more personnel to operate the radar, more complete weapons practice facilities, and more bad-weather flying aids must be provided before the Command's capability can increase to the necessary standards of all-weather defense.

Air/Ground Capability

13. In Denmark the Netcor squadrons are neither training nor are they equipped to carry out air/ground support. Therefore, there is no air/ground support capability in Denmark not only for the reasons given above, but because the squadrons would be too heavily outnumbered and too fully engaged in the air battle to be diverted to the ground support role, and also because today no support organization exists in the country. Such an organization is now planned and is being created. In Norway, as in Denmark, no air/ground support organization currently exists though again one is currently being planned and prepared. Subject, therefore, to the training and control limitations already mentioned, the RCAF could provide some very restricted fair-weather air/ground support.

14. Each national Air Force has one flight of three Spitfires and two reconnaissance aircraft. Pilots are available for training

aircraft together with small photographic processing and interpreting facilities. Within the limitations necessarily imposed by this very tiny force, some tactical reconnaissance capability exists within the Air Forces of both countries.

Air Rescue

20. Air rescue organizations exist in both countries to discharge both military and civil commitments in this respect. Norway uses her six Catalinas and a number of Norsemen floatplanes augmented by sea-going launches, plus a very limited amount of rescue gear. Denmark's Catalina, Oxford, and Sea Otter aircraft are used to discharge the RDAF's responsibility. These facilities are adequate in Denmark but inadequate in Norway to undertake the tasks likely to be encountered with present numbers of aircraft and will have to be expanded as the air strength of the Command increases. Plans are being made to do this and to take over existing civil organizations in the event of war.

Maritime Operations

21. There is a requirement for forty-six maritime aircraft for this Command. The only contribution towards this figure presently available is the small force of Catalinas enumerated in paragraph 13. These are obsolete; some of them are unarmed; the Norwegian aircraft have a high state of unserviceability; four of the Danish aircraft have been earmarked by the Danes for SACLANT. Re-equipping the national Air Forces with American aircraft has been considered, but it cannot be undertaken without creating unacceptable cuts in the planned build-up of other tactical equipment. The Standing Group, in their SG 135/3, agreed with the Northern European Regional Planning Group that Norway and Denmark should not each attempt to create a balanced air force, but should concentrate on the smaller, tactical type A/C. This Command also agrees with this concept and therefore feels that Maritime Air Forces, like the light bomber forces, which are required by this Command should be provided from sources other than the RDAF and RAAF. This Command assumes that additional Maritime Air reconnaissance required in an emergency might be obtained by utilizing the same procedures as are now being set up by SHAPE for requesting assistance from outside air commands such as the RAF Bomber Command, SACLANT, and U.S. Strategic Air Command.

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Ground Defense Against Air Attacks

22. Anti-Aircraft Units. In Norway, there are no full-time regular anti-aircraft units. Existing units consist of men who have completed their military training and are now held on reserve. On mobilization, the Norwegian anti-aircraft forces would consist of 39 heavy batteries of 4 guns each and 29 light batteries of 6 guns each of which 15 are 40 mm units. In Denmark, the following ~~number~~ ^{units} of batteries can be mobilized:

By the Army:

~~10 heavy batteries of 4 guns each.~~ ^{7 HAAs} ~~11 1/2 light batteries (40 mm) of 8 guns each.~~ ^{49 LAA Battalions of 8 40mm guns each. In addition}

By the Navy: ^{can mobilize}

1 heavy battery of 4 guns.
25 twin 40 mm guns.

In addition to the above number of batteries in Denmark, a number of 37 and 20 mm guns can be mobilized.

23. Anti-Aircraft Capability. Although the above represents a considerable though inadequate force on paper, operationally it has many major weaknesses. The Norwegian batteries are mainly equipped with ex-German obsolescent material of restricted accuracy and with a limited ammunition supply that cannot be augmented. They have a limited amount of American equipment but no fully trained personnel for it as yet. The Danish anti-aircraft units are equipped with modern guns but again the provision of trained men lags behind the provision of equipment. Both countries suffer from a shortage of fire control and tactical control radars and operators, and the incomplete control and warning system further limits the operational efficiency of the anti-aircraft defenses.

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24. Command and Deployment of Anti-Aircraft Units. The question of operational control of anti-aircraft artillery by the Allied Air Commander in war and his powers to redeploy national forces is still under consideration as part of the division of responsibility between NATO and national commanders and is in urgent need of solution. The present deployment plans of both countries are drawn up by their respective Defense Staffs. Available AA guns are now dispersed over the Command rather than concentrated around a few vital key points. A Key Points Committee is in the process of being established, which should provide a priority list for key points. If guns are deployed in accordance with this list, the present state of affairs will be improved.

Communications Facilities

25. The communications available at present in the Command area are inadequate to operate the very limited aircraft control and reporting system and to give the commander some measure of control over the air units in the event of war. The chief communications deficiencies are in long lines to link Norway and Denmark and to effect liaison with adjacent formations in Central Europe and the United Kingdom. Within Norway, communications are dependent upon extremely vulnerable open-wire overhead routes. The position is unlikely to improve until new submarine cables are provided under the Signals Infrastructure Program and a microwave system is provided within Norway. Early estimates regarding the improvements to be expected in the communications-electronics field, when the Signals Infrastructure and MDAP Programs become effective, have had to be revised recently in the light of present deliveries and forecasts of delivery dates for new cables. It now appears very doubtful if there will be any marked improvement in communications during 1952. Plans for VHF links Norway-UK and Norway-Denmark have been deleted from the current Signals Infrastructure Program and the provision of the RCAF microwave system under MDAP (upon which the entire Air Force and control- and warning system communications for Norway depends) does not appear likely to be effected in 1952 as planned.

Command Training

26. During the period under review the Commander, Allied Air Forces, Northern Europe, in the exercise of the peacetime mission assigned to his command, has initiated a system of training exercises and combat readiness tests, although a formal agreement on the procedures to be followed has not yet been accepted by the national governments. The first Command post exercise of this Command was the communications exercise "Pigeon," designed to test the emergency Command organization and its supporting communications. It was known, prior to the exercise, that existing peacetime communications were barely sufficient to alert the Air Forces in an emergency. The results of the exercise showed that while the Command organization was, in general, satisfactory, the additional communications which can be provided within 24 hours after an alert will provide only a very limited means of exercising operational command over the Air Forces ~~forces~~ of the Command. Another result of the exercise was that deficiencies in some operational procedures needed correction. Combat readiness tests were performed at Karup and Gardemoen airfields on the two jet squadrons at each of these bases. The total combat effectiveness scores obtained by the units tested are indicated below. These low scores were due mainly to shortage of "combat ready" pilots in these units, and to the lack of ability in all-weather flying and aerial gunnery which in turn was caused by lack of training facilities:

Gardemoen (336th and 337th Fighter Interceptor Sqs)	- 18%
Karup (723rd and 724th Fighter Interceptor Sqs)	- 30%

It is planned that, during 1952, there will be additional Command post exercises performed through the facilities of the RCAF and RDAF and under the operational control of this Headquarters. Combat readiness tests of each of the combat air units are also to be conducted during the remainder of the year. It is felt that such exercises and readiness tests will help bring to the attention

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of all levels of command the problems that must be solved in order to build an operationally effective air force.

IV - ADMINISTRATIVE MATTERS

Headquarters Personnel

27. The growth of Headquarters AAFNE has been continual, but due to limited Headquarters accommodations, rapid expansion to authorized strength figures has had to be retarded with a consequently adverse effect upon the Headquarters ability to carry out its task. For example, the present authorized strength is 256 personnel with a foreseeable increase of 20 individuals this year, giving an estimated strength of 276 personnel by December 1952. However, the strength of the Headquarters at the moment is only 98 and these personnel are very overcrowded by normal office standards. Furthermore, due to personnel shortages in their air services, the Danes and Norwegians have been unable to furnish their full share to this Headquarters' personnel.

Personnel for National Forces

28. It has been estimated that only two additional squadrons will become operational in Norway and Denmark respectively in 1952. This estimate has taken into consideration the difficulties which each of the Air Forces is experiencing in procuring sufficient personnel to permit expansion. In Norway particularly, it has been difficult to procure personnel even up to present authorized strengths due to poor service conditions such as:

- a. Lack of definite career prospects.
- b. Low scales of pay.
- c. Poor living conditions of RCAF installations, particularly for married men.
- d. Lack of adequate pensions.
- e. Lack of other incentives such as allowances, Commissary and Post Exchange (NAAFI), and recreational facilities.

One of the major deterrents to the development of effective Air Forces is the shortage of staff officers. This especially applies to the RCAF. In order to alleviate this shortage, Commander AAFNE has by agreement with the Danish Air Staff, asked SHAF to provide

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13 U.S. and U.K. officers for duty with the RDAF Commander's staff. These personnel will eventually become a part of the subordinate Allied Headquarters in Denmark. Up to this time Norway has declined the use of foreign officers in the RDAF Headquarters.

Maintenance

29. Maintenance facilities of the national air forces are adequate to support the equipment which they are now operating, except for major overhaul of British type jet aircraft engines and accessories. In the past overhaul of these engines and accessories has been accomplished in Sweden and the United Kingdom, requiring six months or more for repair and return of each engine. Facilities for the major overhaul of Goblin engines, used in Vampire aircraft, are now being established at Kjeller and will alleviate this situation as far as Norway is concerned. Denmark is also establishing a facility to overhaul Derwent engines for their Meteors. Facilities for the overhaul of F-84 type aircraft have not yet been established in the Command. Overhaul of the J-35 engine can be accomplished at the present time only in Holland and in the United States. This would be a definite weakness in war, but until present policies are changed or the numbers of F-84 aircraft in the Command warrant it, no major J-35 engine overhaul facilities can be expected to be established within this area.

30. Considerable difficulty has been encountered in obtaining spare parts to support the British type aircraft which are at present being used by the RDAF and RCAF. Since neither Norway nor Denmark were members of the Western Union of Nations, priorities have not been established through the Air Ministry with British producers for furnishing necessary spare parts. In the case of aircraft neither country has been able to obtain replacements for losses due to attrition, and there is a complete lack of reserve aircraft in both of the air forces. The delivery of spare parts and ground servicing equipment to support F-84 aircraft, thus far delivered to Norway and Denmark, has been unsatisfactory. These deliveries should be concurrent with aircraft deliveries, otherwise the training required to form new squadrons in the Command this year cannot be realized. In the event of an emergency, considerable difficulty would

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he encountered in the refuelling of aircraft due to lack of, and obsolescence of, refuelling trucks. This difficulty should be overcome, however, upon delivery of equipment that has been placed on order by the MAAG's. The policy of both Norway and Denmark is to maintain a level of supply which is greater than the SHAPE minimum.

Transportation

31. Rail, highway and water transport facilities necessary to support wartime operations are not adequate. At the present time, all aviation fuel in Norway is being handled through bulk plants located in Oslo Fjord. This procedure can be changed when additional factors justify the direct supply to other existing storage or to storage proposed for construction in the proximity of airfields under the Infrastructure Program. The shortage of coastal tankers seriously affects the ability to resupply air bases at the present time. This deficiency can be corrected if proposed Infrastructure Programs are approved and implemented. Since only one transport squadron of ten Dakota type aircraft is available, little air transportation support can be expected at the beginning of hostilities.

V CONCLUSIONS

Present Combat Capability

32. The preceding paragraphs have enumerated briefly the various factors which contribute toward arriving at a measure of the combat capabilities of this command. In conclusion it can be stated that at present, combat operations would be confined essentially to a limited number of air interceptions over a very few key defense points. These interceptions could be conducted only in good-weather, daylight conditions. Surface targets could not be attacked effectively. In the face of a determined and sustained attack by the Soviets, the Air Arm would be non-effective in a few days or possibly in a few hours.

Forecast for the Future

33. An additional 100 airplanes, which it is expected will be

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in operational units by January 1953, will improve the situation, but this equipment alone falls far short of supplying the full solution to all the factors which have retarded progress and which may continue to prevail in the future.

From the foregoing report, it can be concluded that there is an urgent need for the accomplishment of the following:

- a. An early change in the national policies which prohibit the stationing of foreign units in Norway and Denmark.
- b. An agreed:
 - (1) Division of Responsibilities.
 - (2) Command Organization.
- c. A marked improvement in communications.
- d. Considerable increase in Air Defense capability, including:
 - (1) An improved and enlarged C&R System.
 - (2) Provision of navigational aids including instrument landing aids,
 - (3) Considerable increase in anti-aircraft.
- e. Assurance that new equipment will be manned and maintained by sufficient numbers of properly trained personnel.
- f. The ability to staff all Headquarters organizations with properly trained officers and specialists.
- g. Increased facilities to aid in the accomplishment of the full squadron training program.
- h. The creation of adequate maintenance and supply organizations and facilities, and pre-stocking of sufficient supplies to support sustained combat air operations.

In order for the Northern Air Command to meet eventually the minimum standard of capability which is essential for the implementation of Defense Plans in 1954, a considerable task lies ahead. A great deal more material progress must be made in the next year than has been evidenced during the period of this report. The ensuing year is indeed a very critical one, and the progress shown during the next few months will almost certainly furnish a barometer by which to gauge the eventual success or failure of preparing the Air Arm for war readiness by mid-1954.